[ABSTRACT]

FM SCREENING WITH SUB-DOT PHASE MODULATION

5   In an error diffusion halftoning process a clusters of adjacent pixels can be placed at any
arbitrary position of the pixel grid.

The quantization step of the error diffusion takes into account the effect of placement of a
cluster of pixels. The size of a pixel cluster may be fixed or variable.

The quantization step of the halftoning process may take into account the effect of the
10 placement of a cluster of pixels in the same or in a different color separation.

The method produces halftones that are less grainy and that print more robustly and
uniformly in the presence of printer variability.

The quantization step in the error diffusion process according to one representative
embodiment of the invention evaluates quantization values of possible alternatives in placing
15 the clusters of pixels.

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